

# Leviathan Mine Superfund Site

**U.S.  
Environmental  
Protection Agency  
Region 9**

**January 28, 2016**



# Annual Technical Update Meeting - 2016



- Introductions
- EPA YSanchez, LDeschambault & GRiley
- Treatment Season Overview
- Lahontan RWQCB & Atlantic Richfield  
Vic Claassen
- Data Observations Update
- EPA PHusby
- Benthic Macroinvertebrate  
Sampling Update
- Dr. Herbst
- Remedial Investigation /  
Feasibility Study Overview
- Atlantic Richfield Co.
- Human Health & Eco Risk  
Assessment
- Atlantic Richfield Co.
- CDPH & Washoe Signage
- Calif. DPH

# Leviathan Mine Superfund Site



# Leviathan Mine Alpine County, CA

- Abandoned open-pit sulfur mine
- About 250 acres
- 24 Miles Southeast of Lake Tahoe
- High elevation
- Upstream from national forest, private, and Washoe land





# Leviathan Mine Site History



<b>1863-1872</b>	<b>Underground mining for copper</b>
<b>1873-1935</b>	<b>Inactive</b>
<b>1935-1941</b>	<b>Underground mining for sulfur</b>
<b>1952-1962</b>	<b>Open pit sulfur mining by The Anaconda Company Fish kills reported in 1952</b>
<b>1977</b>	<b>Atlantic Richfield Company purchased Anaconda</b>
<b>1984</b>	<b>State Water Resources Control Board (SWRCB) acquired the site to address water quality</b>
<b>2000</b>	<b>EPA added the site to National Priorities List (NPL)</b>

# Early Interim Actions (Summary)



1985	1996 - present	1999 - Present	2001 - 2009	2009- Present
Pollution Abatement Project	Aspen Seep Bioreactor	Pond water treatment system	Lime treatment system	High-density sludge treatment system

## Currently operated by:

Lahontan Regional Water Quality Control Board	Atlantic Richfield Company	Lahontan Regional Water Quality Control Board	Atlantic Richfield Company	Atlantic Richfield Company
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## Early Interim Actions



## Remedial Investigation and Feasibility Study (RI/FS)

# Remedial Investigation and Feasibility Study (RI/FS)



**The RI and FS are conducted concurrently. Data collected in the RI influence/inform the development of clean up options in the FS**

## **The remedial investigation (RI):**

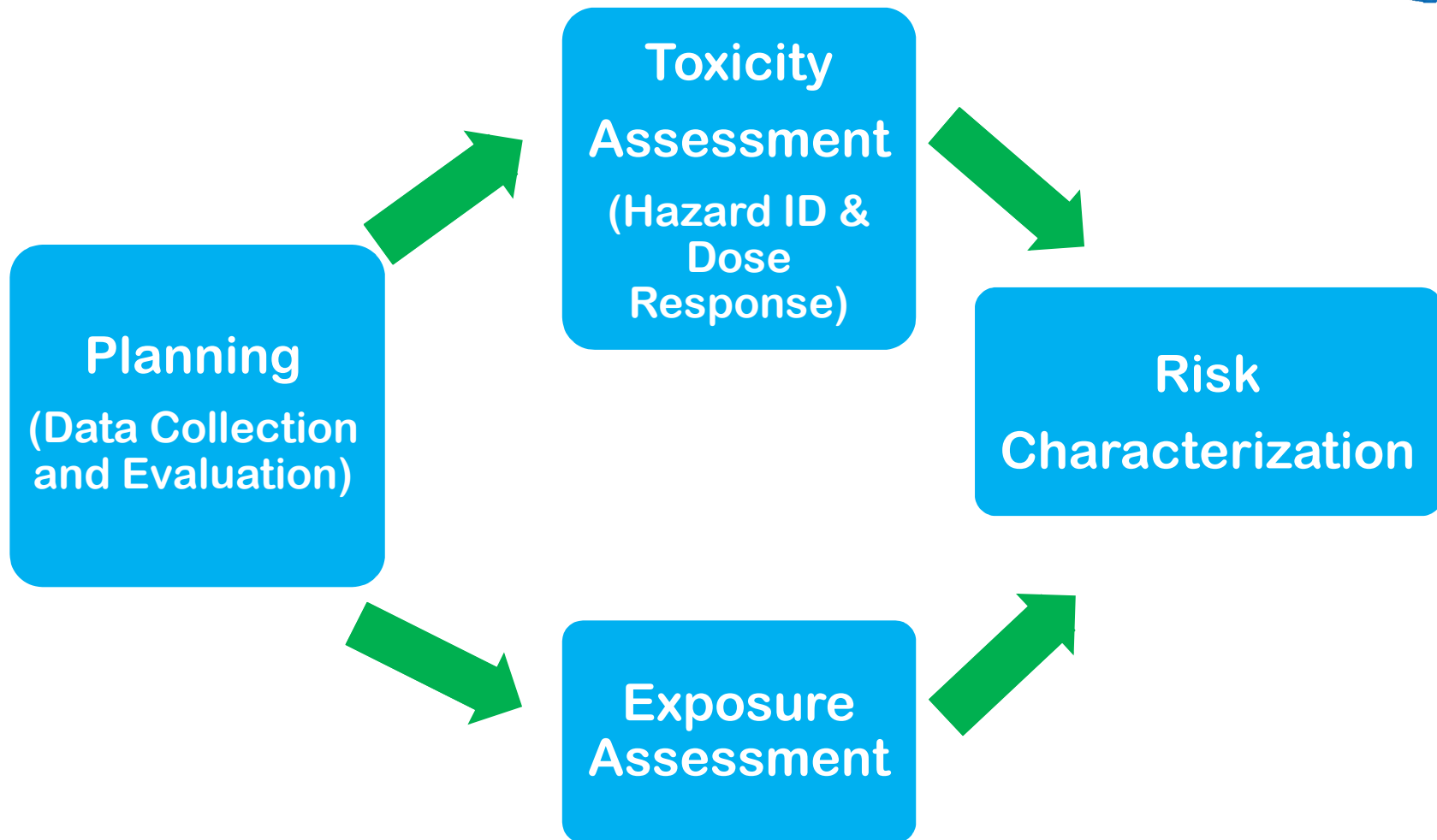
- Gathers & evaluates historical and current data
- determines the nature and extent of the waste
- develops an ecological and human health risk assessment

## **The feasibility study (FS):**

- Evaluates clean up options to reduce those risks
- Identifies candidate technologies
- Presents those recommendations for public comment



# Human Health Risk Assessment



# EPA Contact Information



EPA's Superfund Toll-Free telephone number 1-800-231-3075

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EPA's Web page: [www.epa.gov/region09/LeviathanMineSite](http://www.epa.gov/region09/LeviathanMineSite)

## Information Repositories

### **Douglas County Library**

1625 Library Lane  
Minden, NV 89432  
(775) 782-9841

### **EPA Superfund Records Center**

75 Hawthorne Street (3rd Floor)  
San Francisco, CA 94105  
(415) 536-2000

